

STATEMENT OF BASIS (AI No. 2433)

for draft Louisiana Pollutant Discharge Elimination System permit No. LA0003344 to discharge to waters of the State of Louisiana.

THE APPLICANT IS: Allens, Inc.
Allens, Inc. - Plant #2
1581 Highway 114
Hessmer, LA 71341

ISSUING OFFICE: Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

PREPARED BY: Kelli Hamilton

DATE PREPARED: March 23, 2009

1. PERMIT STATUS

A. Reason For Permit Action:

Permit reissuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term.

B. LPDES permit - LPDES permit effective date: February 1, 2004
LPDES permit expiration date: January 31, 2009
EPA has not retained enforcement authority.

C. Date Application Received: September 22, 2008 - Additional information was received via email on April 2, 2009.

2. FACILITY INFORMATION

A. FACILITY TYPE/ACTIVITY - vegetable processing and canning facility

The facility processes and cans a variety of vegetables. The canning process consists of washing, inspecting, peeling, cutting, blanching, soaking, canning, cooking, cooling, labeling, and packing for shipment.

B. FEE RATE

1. Fee Rating Facility Type: minor
2. Complexity Type: II
3. Wastewater Type: II
4. SIC code: 2033

C. LOCATION - 1581 Highway 114 in Belle d'Eau, Avoyelles Parish
Latitude 31°5'1", Longitude 92°11'16"

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3. OUTFALL INFORMATION

Outfall 001

Discharge Type: process wastewater, potable water treatment plant backwash water, cooling water, treated sanitary wastewater, and stormwater runoff
Treatment: series of lagoons, DAF (Dissolved Air Flotation) unit
Location: at the point of discharge from the final treatment lagoon outfall structure
Flow: 1.0 MGD
Discharge Route: German Bayou

4. RECEIVING WATERS

STREAM - German Bayou

BASIN AND SEGMENT - Vermilion-Teche Basin, Segment 060212

DESIGNATED USES - a. primary contact recreation
b. secondary contact recreation
c. propagation of fish and wildlife

5. TMDL WATERBODIES

Chatlin Lake Canal and Bayou Dulac, is not listed on LDEQ's Final 2006 303(d) List as impaired. However, this Subsegment was previously listed as impaired with suspended solids/turbidity/siltation, pathogen indicators, organic enrichment/low DO, nitrate + nitrite as nitrogen, and phosphorus, for which TMDLs have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water integrity and the designated uses of the receiving waterbodies based upon additional TMDLs and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to the established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with the water quality standards.

The following TMDLs have been established for Subsegment 060212:

The TMDL for TSS, Turbidity, and Siltation for the Bayou Teche Watershed was final on May 2, 2002. As per the TMDL, "Point source loads do not represent a significant source of TSS as defined in this TMDL. Point sources discharge primarily organic TSS, which does not contribute to habitat impairment resulting from sedimentation. Because point sources are minor contributors and dischargers of organic suspended solids from point sources are already addressed by LDEQ through their permitting of point sources to maintain water quality standards for DO, the wasteload allocation for point source contributions were set to zero. This TMDL only addresses the landform

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contribution of TSS/sediment and does not address the insignificant point source contributions."

A TMDL for Subsegment 060212 for Fecal Coliform, Chatlin Lake Canal and Bayou Du Lac Fecal Coliform (Federal Register Notice: Volume 68, Number 80, pages 20388 - 20389 (4/25/2003)), was completed on April 25, 2003. The TMDL states that "The Louisiana Water Quality Regulations require permitted point source discharges of treated sanitary wastewater to maintain a fecal coliform count of 200 cfu/100 mg/L. Therefore, there will be no change in the permit requirements based upon a wasteload allocation resulting from this TMDL." However, in accordance with the TMDL, the predominant land uses in Subsegment 060212 are agriculture and forestry. Therefore, stormwater runoff could contain elevated amounts of fecal coliform. Because the sanitary discharge from Allen Canning commingles with stormwater, a fecal coliform limitation will not be included in this permit. The sanitary discharge is treated along with the process waters in a series of lagoons and a DAF unit. Furthermore, the discharges from this facility are considered too small to have significant impact and should not cause or contribute to the violation of water quality standards.

A TMDL for Dissolved Oxygen and Nutrients, Chatlin Lake Canal/Bayou Du Lac and Bayou Des Glaizes Diversion Channel TMDLs for DO and Nutrients (Federal Register Notice: Volume 67, Number 84, pages 21680 - 21681 (5/1/2002)) was completed on May 1, 2000. The TMDL concludes that maintaining the water quality standard for Subsegment 060212 would require significant reductions of oxygen demanding loads. These reductions include four point source dischargers. Allen Canning is required by this TMDL to upgrade to discharge concentrations of 10 mg/L CBOD. Using best professional judgment, BOD concentration limits will be established in the permit in lieu of CBOD concentration limits because the TMDL did not include an ammonia limit.

6. PROPOSED EFFLUENT LIMITS

BASIS - See Rationale below.

Summary of Proposed Changes From the Current LPDES Permit: Outfalls 002, 102 and 202 have been removed from the permit. Outfall 002 was the intermittent discharge of stormwater and previously monitored potable water treatment plant backwash water via Outfall 102 and previously monitored cooling water via Outfall 202. Potable water treatment plant backwash water and cooling water were never sent to Outfall 102 and Outfall 202, respectively. These wastewaters are discharged with the process wastewater via Outfall 001. Therefore, Outfall 002 would only consist of stormwater runoff from the former airstrip and other grassed areas around the facility. A DMR review of Outfall 002 was conducted for the dates of March 2004 through December 2008. There were four excursions of the TOC limit. In accordance with LAC 33:IX.2511.B.14.a-k, facilities classified as SIC code 2033 are considered to have storm water discharges associated with industrial activity.

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Therefore, a Storm Water Pollution Prevention Plan (SWP3) requirement was placed in the previous permit. This requirement will remain in this permit to allow for stormwater runoff coverage. Limits in Outfall 001 increased from previous permit due to an increase in production.

7. COMPLIANCE HISTORY/COMMENTS

A. Compliance History

A Notice of Potential Penalty (WE-00-09-0005) was issued March 4, 2009. The following violations were noted during the course of the file review: Three violations of the TOC limit on Outfall 002, and one violation of the pH limit for Outfall 001 were reported on DMRs (See B. below). The facility failed to monitor its effluent in accordance with approved test procedures. Specifically, the holding times for BOD and TSS were exceeded for Outfall 001 in August 2008.

B. DMR Review/Excursions - A DMR review was completed for January 2007 through December 2008. The excursions are as follows:

DATE	PARAMETER	OUTFALL	REPORTED VALUE		PERMIT LIMITS	
			MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM
4/07	TOC	002	---	55.5	---	50 mg/l
11/07	TOC	002	---	106	---	50 mg/l
8/08	pH	001		9.2		9.0
11/08	TOC	002	---	57.5	---	50 mg/l

8. EXISTING EFFLUENT LIMITS

Outfall 001:

Pollutant	Limitation		Monitoring Requirements	
	Mo.Avg:Daily Max (lb/day)	(mg/l)	Measurement Frequency	Sample Type
Flow	Report:Report	---:---	1/2weeks	Estimate
BOD*	383:522	12:18	1/2weeks	Grab
BOD**	164:272	12:18	1/2weeks	Grab
TSS*	795:980	---:---	1/2weeks	Grab
TSS**	341:488	---:---	1/2weeks	Grab
pH (s.u.)		6.0:9.0 (min:max)	1/2weeks	Grab

* August through November

**December through July

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Outfall 002:

<u>Pollutant</u>	<u>Limitation</u>		<u>Monitoring Requirements</u>	
	Mo.Avg:Daily Max (lb/day)	(mg/l)	Measurement Frequency	Sample Type
Flow	Report:Report		1/quarter	Estimate
TOC	-----	---:50	1/quarter	Grab
Oil & Grease	-----	---:15	1/quarter	Grab
pH (s.u.)		6.0:9.0 (min:max)	1/quarter	Grab

Outfall 102:

<u>Pollutant</u>	<u>Limitation</u>		<u>Monitoring Requirements</u>	
	Mo.Avg:Daily Max (lb/day)	(mg/l)	Measurement Frequency	Sample Type
Flow	Report:Report	---:---	1/month	Estimate
TSS	-----	30:45	1/month	Grab
Clarifying Agents	---:---	Report:Report	1/month	Inventory Calculations
pH (s.u.)		6.0:9.0 (min:max)	1/month	Grab

Outfall 202:

<u>Pollutant</u>	<u>Limitation</u>		<u>Monitoring Requirements</u>	
	Mo.Avg:Daily Max (lb/day)	(mg/l)	Measurement Frequency	Sample Type
Flow	Report:Report	---:---	1/quarter	Estimate
BOD*	383:522	12:18	1/quarter	Grab
BOD**	164:272	12:18	1/quarter	Grab
Temperature	-----	Report:Report	1/quarter	Grab
pH (s.u.)		6.0:9.0 (min:max)	1/quarter	Grab

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9. ENDANGERED SPECIES

The receiving waterbody, Subsegment 060212 of the Vermilion-Teche Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated November 17, 2008 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

10. HISTORIC SITES

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

11. TENTATIVE DETERMINATION

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in the application.

12. PUBLIC NOTICES

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

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13. STORM WATER POLLUTION PREVENTION PLAN (SWP3) REQUIREMENT

A SWP3 is included in the permit because in accordance with LAC 33:IX.2511.A.1, storm water shall not be required to obtain and LPDES permit "... except... discharges associated with industrial activity." In accordance with LAC 33:IX.2511.B.14.a-k, facilities classified as SIC code 2033 are considered to have storm water discharges associated with industrial activity.

For first time permit issuance, the SWP3 shall be prepared, implemented, and maintained within six (6) months of the effective date of the final permit. For renewal permit issuance, the SWP3 shall be reviewed and updated, if necessary, within six (6) months of the effective date of the final permit. The plan should identify potential sources of storm water pollution and ensure the implementation of practices to prevent and reduce pollutants in storm water discharges associated with industrial activity at the facility (see Part II of the Draft Permit).

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Rationale for Allens, Inc.

1. Outfall 001 - process wastewater, potable water treatment plant backwash water, cooling water, treated sanitary wastewater, and stormwater runoff (estimated flow is 1.0 MGD)

<u>Pollutant</u>	<u>Limitation</u>		<u>Reference</u>
	Mo. Avg:Daily Max (lbs/day)	Mo. Avg:Daily Max (mg/l)	
Flow	Report:Report	---:---	LAC 33:IX.2361.I.1.b.
BOD (*1)	873:1,190	12:18	40 CFR 407.72; TMDL(*)
BOD (*2)	184:262	12:18	40 CFR 407.72; TMDL(*)
TSS (*1)	1,812:2,235	---:---	40 CFR 407.72
TSS (*2)	382:487	---:---	40 CFR 407.72
pH	---:---	6.0 - 9.0 su	previous permit

Treatment: series of lagoons, DAF unit

Monitoring Frequency: once per 2 weeks at the point of discharge from the final treatment lagoon outfall structure

Limits Justification: BOD and TSS mass limits for the months of September through December (peak sweet potato season) are based on the Standards of Performance for Best Practicable Control Technology for the Canned and Preserved Vegetables Subcategory of the Canned and Preserved Fruits and Vegetables Processing Point Source Category Effluent Limitation Guidelines (ELG), 40 CFR 407 Subpart G, for potato production.

Production Season - September through December
 Production per day - 1,322,760 lbs/day sweet potato

BOD Effluent Limitation Guidelines

Daily Maximum - 0.9 lbs/1000 lbs of raw material
 Monthly Average - 0.66 lbs/1000 lbs of raw material
 Annual Average - 0.55 lbs/1000 lbs of raw material

BOD Limitations Calculations

Daily Maximum - (1,322,760 lbs/day) x (0.9 lbs/1000 lbs) = 1,190 lbs/day
 Monthly Average - (1,322,760 lbs/day) x (0.66 lbs/1000 lbs) = 873 lbs/day

TSS Effluent Limitation Guidelines

Daily Maximum - 1.69 lbs/1000 lbs of raw material
 Monthly Average - 1.37 lbs/1000 lbs of raw material
 Annual Average - 1.09 lbs/1000 lbs of raw material

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TSS Limitations Calculations

Daily Maximum - $(1,322,760 \text{ lbs/day}) \times (1.69 \text{ lbs/1000 lbs}) = 2,235 \text{ lbs/day}$
Monthly Average - $(1,322,760 \text{ lbs/day}) \times (1.37 \text{ lbs/1000 lbs}) = 1,812 \text{ lbs/day}$

BOD and TSS mass limits for the months of January through August (non-peak sweet potato season) are based on the Standards of Performance for Best Practicable Control Technology for the Canned and Preserved Vegetables Subcategory of the Canned and Preserved fruits and Vegetables Processing Point Source Category Effluent Limitation Guidelines (ELG), 40 CFR 407 Subpart G, for sweet potato, and dry bean production.

Production Season - January through August
Production per day - 220,460 lbs/day sweet potato

BOD Effluent Limitation Guidelines

Daily Maximum - 0.9 lbs/1000 lbs of raw material
Monthly Average - 0.66 lbs/1000 lbs of raw material
Annual Average - 0.55 lbs/1000 lbs of raw material

BOD Limitations Calculations

Daily Maximum - $(220,460 \text{ lbs/day}) \times (0.9 \text{ lbs/1000 lbs}) = 198 \text{ lbs/day}$
Monthly Average - $(220,460 \text{ lbs/day}) \times (0.66 \text{ lbs/1000 lbs}) = 146 \text{ lbs/day}$

TSS Effluent Limitation Guidelines

Daily Maximum - 1.69 lbs/1000 lbs of raw material
Monthly Average - 1.37 lbs/1000 lbs of raw material
Annual Average - 1.09 lbs/1000 lbs of raw material

TSS Limitations Calculations

Daily Maximum - $(220,460 \text{ lbs/day}) \times (1.69 \text{ lbs/1000 lbs}) = 373 \text{ lbs/day}$
Monthly Average - $(220,460 \text{ lbs/day}) \times (1.37 \text{ lbs/1000 lbs}) = 302 \text{ lbs/day}$

Annual Production - 6,172,880 lbs of dry beans/year
Production Season - January through August = 243 days
Production per day - $(6,172,880 \text{ lbs/year}) / (243 \text{ days/year}) = 25,403 \text{ lbs/day}$

BOD Effluent Limitation Guidelines

Daily Maximum - 2.5 lbs/1000 lbs of raw material
Monthly Average - 1.51 lbs/1000 lbs of raw material
Annual Average - 1.07 lbs/1000 lbs of raw material

BOD Limitations Calculations

Daily Maximum - $(25,403 \text{ lbs/day}) \times (2.5 \text{ lbs/1000 lbs}) = 64 \text{ lbs/day}$
Monthly Average - $(25,403 \text{ lbs/day}) \times (1.51 \text{ lbs/1000 lbs}) = 38 \text{ lbs/day}$

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TSS Effluent Limitation Guidelines

Daily Maximum - 4.48 lbs/1000 lbs of raw material
 Monthly Average - 3.13 lbs/1000 lbs of raw material
 Annual Average - 1.97 lbs/1000 lbs of raw material

TSS Limitations Calculations

Daily Maximum - (25,403 lbs/day) x (4.48 lbs/1000 lbs) = 114 lbs/day
 Monthly Average - (25,403 lbs/day) x (3.13 lbs/1000 lbs) = 80 lbs/day

TOTAL BOD Limitations Calculations

Daily Maximum - 198 lbs/day + 64 lbs/day = 262 lbs/day
 Monthly Average - 146 lbs/day + 38 lbs/day = 184 lbs/day

TOTAL TSS Limitations Calculations

Daily Maximum - 373 lbs/day + 114 lbs/day = 487 lbs/day
 Monthly Average - 302 lbs/day + 80 lbs/day = 382 lbs/day

The narrative portion of the permit contains this provision for Outfall 001: Any plant discharging process wastewater during the processing season shall meet annual average limitations under 40 CFR 407.72. An annual average limitation in lbs/year of BOD and TSS shall be calculated based on the amount of sweet potatoes processed each year plus the amount of dry beans processed each year. To calculate the facility's **Annual Average Limitation** perform the following steps: (Step 1) Divide the annual total pounds of sweet potatoes by 1,000; (Step 2) Multiply the result derived from Step 1 by 0.55 to get the BOD limitation for sweet potatoes; (Step 3) Multiply the result derived from Step 1 by 1.09 to get the TSS limitation for sweet potatoes; (Step 4) Divide the annual total pounds of dry beans by 1,000; (Step 5) Multiply the result derived from Step 4 by 1.07 to get the BOD limitation for dry beans; (Step 6) Multiply the result derived from Step 4 by 1.97 to get the TSS limitation for dry beans; (Step 7) Calculate the BOD annual average limitation by adding the BOD result of the sweet potatoes derived from Step 2 and the BOD result of the dry beans derived from Step 5. Calculate the TSS annual average limitation by adding the TSS result of the sweet potatoes derived from Step 3 and the TSS result of the dry beans derived from Step 6.

In addition, the annual average loading shall be calculated in order to determine the amount of BOD and TSS discharged throughout the year. An annual average loading in lbs/year of BOD and TSS shall be calculated based on the analysis of the effluent sample taken biweekly. To calculate the facility's **Annual Average Loading** for BOD and TSS, perform the following steps: (Step 1) Calculate the biweekly sample loading (lbs/day) as follows: biweekly analysis result for BOD or TSS (mg/l) x flow (MGD) x 8.34; (Step 2) Calculate biweekly loading (lbs/week) as follows: multiply biweekly sample loading derived from Step 1 by the number of operational days in those two weeks; (Step 3) Calculate the Annual Average Loading by adding all the biweekly loading values derived from Step 2 over the

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calendar year. Report the Annual Average Limitation and Annual Average Loading for both BOD and TSS on an attachment to the DMR. (See Part II Paragraph H.)

The facility also produces okra, cabbage, carrots, and beets. However, the calculated limits for these vegetables is negligible. In addition, not all vegetables are produced at a single time. Therefore, the calculated limits of sweet potatoes and dry beans should account for the remaining vegetables.

Final BOD concentration limitations are based on the Chatlin Lake Canal/Bayou Du Lac and Bayou Des Glaisses Diversion Channel TMDLs for DO and Nutrients (Federal Register Notice: Volume 67, Number 84, pages 21680 - 21681 (5/1/2002)). The TMDL requires an upgrade to discharge concentrations of 10 mg/L CBOD. However, because the guidelines establish BOD limits and because there is no ammonia limit, the CBOD concentration limitation has been substituted with a BOD concentration limitation as per LAC 33:IX.5905. ,

pH limits are based on the previous permit. Though the guidelines, 40 CFR 407.72, allow a pH maximum of 9.5, the maximum remains at 9.0 in accordance with LAC 33:IX.2361.L.1 which states "when a permit is renewed or reissued, interim limits, standards or conditions must be at least as stringent as the final limitations, standards or conditions in the previous permit."

* Chatlin Lake Canal/Bayou Du Lac and Bayou Des Glaisses Diversion Channel TMDLs for DO and Nutrients (Federal Register Notice: Volume 67, Number 84, pages 21680 - 21681 (5/1/2002))

(*1) These limitations apply September through December (peak sweet potato season).

(*2) These limitations apply January through August (non-peak sweet potato season).

BPJ Best Professional Judgement
su Standard Units